

Dimensions of the type (an adult male in spirit):—

Forearm 28 millim.

Head and body 38; tail 32; ear 11; tragus on inner edge 4.2; lower leg 13; calcar 12.5. Greatest length of skull 12.1.

*Hab.* Selangore, Malay Peninsula. "Caught under a railway-arch."

*Type* B.M. no. 98.3.13.5. Collected and presented by Mr. H. N. Ridley.

This little Pipistrelle is readily distinguishable from all others by its short and peculiarly-shaped incisors, for all the ordinary members of the genus have long styliiform incisors, which may or may not have a small supplementary cusp near their tips, but which are never short, broad, and separated into two almost subequal cusps, as is the case in *P. Ridleyi*. The unusually short forearms, the wide space between the canines and posterior premolars, in the centre of which the small premolar stands, and the disproportionate size of the last lower incisor are also all points distinguishing *P. Ridleyi* from any other species known to me.

In some respects, notably in the shortness of the forearm, *P. Ridleyi* is approached by Temminck's "*Vespertilio tenuis*," of which no authentic specimens are in the Museum collection; but Dobson's description of the teeth of that animal, based on the types, shows conclusively that, whatever else it may be, it is not the little species discovered by Mr. Ridley.

LVIII.—*On Three new Species of Hydroids and One new to Britain*\*. By C. C. NUTTING, Professor of Systematic Zoology in the University of Iowa.

[Plates XIV.—XVI.]

THE material upon which the following descriptions are based was obtained by me during April and May, 1895, whilst occupying a table at the Laboratory of the Marine Biological Association at Plymouth, the observations being made for the most part on the living animal.

*Eudendrium album*, sp. n. (Pl. XIV. fig. 1.)

*Trophosome*.—Colony minute for this genus, matured specimens measuring from  $\frac{1}{4}$  to  $\frac{3}{8}$  inch in height. Hydrocaulus

\* Cf. 'Journal of the Marine Biological Association,' vol. iv.

irregularly and loosely branching, the branches being slender and giving rise to very long ultimate ramuli, which are often many times the length of the hydranths. Proximal branches with a series of distinct annulations above their origin; distal branches and ultimate ramuli with the annulations indistinct or wanting. *Hydranths white*, minute, with large trumpet-shaped proboscis and 26 to 32 tentacles.

*Gonosome*.—Male gonophores borne in bithalamic verticils below the bases of the tentacles of the hydranths; female gonophores arranged in a somewhat irregular monothalamic verticil in the same position. The hydranths bearing gonophores are not so generally aborted as in the case of *E. capillare*.

*Colour*.—Main stem and branches distinctly dark brown, fading to pale horn-colour and whitish in the ultimate ramuli. Hydranths white, with little, if any, brownish or pinkish tint to the body or proboscis, although the contents of the body-cavity may show through and impart an effect of faint coloration.

*Habitat*.—On stones in shallow water near Millbay Channel. The stones are often covered with a dense growth of this hydroid, which appears to the unaided eye like white cottony tufts or downy patches. The gonophores were abundant in April.

The distinguishing features of this species are the minuteness of the colony and of the individual hydranths, both of which are less than half the height of any other *Eudendrium* from British waters, and the very striking white colour of the hydranths—a feature not found in any other *Eudendrium* inhabiting those waters.

*Opercularella hispida*, sp. n. (Pl. XIV. fig. 2.)

*Trophosome*.—Hydrothecæ borne on very short pedicels springing from a creeping root-stalk, almost tubular, with slightly swelling sides, about three times as deep as wide. Margin divided into a number (10 to 12) of long slender teeth, whose points converge over the centre of the hydrotheca and form an operculum when the hydranth is retracted. Hydranth cylindrical, capable of great protrusion, with a conical proboscis and about 16 strongly serrated tentacles, the serrated appearance being due to very large nematocysts.

*Gonosome* not known.

*Habitat*.—Found growing over a stone, together with a colony of *Clava multicornis*.

*Locality*.—Plymouth, England.

This species bears some resemblance to *Calycella syringa*,

Linn., from which it differs in having a much shorter pedicel, a not strictly tubular hydrotheca, a greater number of segments to the operculum, in the absence of the tubular extension of the operculum, and in a much thinner structure, the hydrothecæ being of glassy transparency in *O. hispida*, but of a decided brownish or yellowish horn-colour in *C. syringa*. The most striking feature, however, of the present species is the remarkably hispid appearance of the tentacles, which appear to be made up of a series of triangular segments, on account of the formidable array of large nematocysts with which they are armed. Whilst examining the expanded tentacles with a  $\frac{1}{8}$  objective I was so fortunate as to see these batteries of projectiles suddenly explode, sending out a perfect maze of barbed threads, which appeared to be larger and longer than those of any hydroid that I have seen except *Nematophorus grandis*, Clarke.

In the absence of the gonosome it is impossible to say with any certainty to which genus this interesting little species belongs. The general form of the hydrotheca, the cylindrical hydranth with conical proboscis, together with the convergent teeth, give a facies like that of the genus *Opercularella*, in which it is provisionally placed.

*Plumularia Alleni*\*, sp. n. (Pl. XV. figs. 1-6.)

*Trophosome*.—Colony attaining a height of  $\frac{1}{2}$  to  $\frac{3}{4}$  inch. Stem simple, monosiphonic, divided into regular internodes, each of which bears a hydrocladium on a process springing from near its distal end. Hydrocladia divided into alternating hydrothecate and intervening internodes, the former being the longer, with deep annulations occasionally appearing near the nodes. Hydrothecæ rather shallow, cup-shaped, borne near the distal ends of the internodes. Nematophores small, bithalamic; a supracalycine pair reaching just above the top of the hydrotheca, a mesial nematophore some distance below the hydrotheca, and another in the middle of each intervening internode; a pair of cauline nematophores in the axil of each hydrocladium and one just below the middle of each cauline internode on the side opposite the hydrocladium borne by that internode. Hydrothecæ with about 16 tentacles and a conical proboscis.

*Gonosome*.—Gonangia borne singly at the bases of the hydrocladia, of two kinds, one (female?) obconic, curved like a horn, narrowing rapidly to the very short pedicel. In

\* Named after the Director of the Plymouth Laboratory, an enthusiastic worker in marine zoology.

several cases round bodies greatly resembling acrocysts were seen resting on the top of these gonangia. The other kind of gonangia (male?) was much longer, more slender, and but slightly curved. None of the gonangia were annulated.

*Locality*.—Plymouth Sound.

*Habitat*.—Found growing on *Antennularia ramosa*.

This delicate species bears considerable general resemblance in size, form, and parasitic habit to *P. halecioides*. It differs, however, in having a non-fascicled stem, smaller hydrothecæ, more numerous nematophores, and especially in the gonangia, which are greatly unlike the annulated structure of *P. halecioides*.

*Aglaophenia Helleri*, Marktanner-Turneretscher\*.  
(Pl. XVI. figs. 1-4.)

This species was collected by Mr. Allen on May 8th from beneath the overhanging shelf of rock below the remains of the old lighthouse at the Eddystone, where it was growing in considerable quantity †. This is the first record of *A. Helleri* on British shores.

*Trophosome*.—Colony unbranched, attaining a height of  $\frac{3}{4}$  inch. Stem monosiphonic, divided by very deep nodes into short internodes, each bearing a hydrocladium springing from its antero-lateral aspect. Hydrocladia alternate, closely set, divided into internodes, each bearing a hydrotheca and partly divided by two imperfect transverse septa. Nodes very distinct. Hydrothecæ obconic, about as deep as the aperture is wide. Marginal teeth 9, unequal in size, the anterior one often being slightly incurved and rather longer and more pointed than the others; the second and fourth teeth counting from behind are larger than the first and third. There is no apparent intrathecal ridge. Supracalycine nematophores rather small, stout, reaching to the level of the hydrothecal margin; the mesial nematophore springs from just below the margin of the hydrotheca and projects straight upwards and outwards, its truncated end reaching to the level of the longest marginal teeth. There are two modified nematophores on each hydrocladium near its base.

*Gonosome* (description from Naples specimen).—Corbula thick and short, with the leaves or ribs more closely soldered together than in the other small British species. Ribs six on each side, with a row of nematophores on their distal edges.

\* 'Die Hydroiden des k. k. naturhistorischen Hofmuseums,' Vienna, 1890, p. 271, pl. vii.

† 'Journal of the Marine Biological Association,' n. s. iv. p. 49.  
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*Habitat.*—Found growing on thick roots of marine plants from Eddystone rocks.

*Distribution.*—Naples and Rovigno (*Marktanner-Turner-etscher*), and Plymouth, England.

#### EXPLANATION OF THE PLATES.

[The figures were made by Miss Mary MacBride from sketches by the author.]

#### PLATE XIV.

- Fig. 1.* *Eudendrium album*.  
*Fig. 2.* *Opercularella hispida*.

#### PLATE XV.

- Fig. 1.* *Plumularia Alleni*. Part of colony with gonangia.  
*Fig. 2.* Ditto. Hydrocladium, enlarged.  
*Fig. 3.* Ditto. Hydrotheca and hydranth.  
*Fig. 4.* Ditto. Gonangium (♀?).  
*Fig. 5.* Ditto. Gonangium with apparent acrocyt.  
*Fig. 6.* Ditto. Gonangium (♂?).

#### PLATE XVI.

- Fig. 1.* *Aglaophenia Helleri*\*. Two hydrothecæ and internodes.  
*Fig. 2.* Ditto. Single hydrotheca, enlarged.  
*Fig. 3.* Ditto. Expanded hydranth.  
*Fig. 4.* Ditto. Corbula.

### LIX.—*Coleoptera collected in the Transvaal.*

By W. L. DISTANT.

#### LONGICORNIA.

DURING my sojourn in the Transvaal I made every effort to form a collection of these interesting beetles; but they abound more in numbers than in species on the high and little-wooded veld around Pretoria and Johannesburg, and are there principally floral members of the family Cerambycidae. The warmer and better-wooded regions are more productive, as might be expected, but in the Transvaal I always found the capture of a Longicorn, beyond the usual predominant species, somewhat uncommon in collecting experience. Many species come to light, as does the fine *Prospilus serricornis*, which, as in many other known species, emits a loud squeaking noise on

\* The polyp and corbula of *Aglaophenia Helleri* have not before been figured.